

INTERNATIONAL SEARCH REPORT

International Application No
PCT/FI2004/000654

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 D21H21/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 D21H A61L G01N C12M C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 349 874 A (SCHAPIRA ET AL) 27 September 1994 (1994-09-27) claims 1-28; example 1	1
X	EP 1 350 431 A (KURITA WATER INDUSTRIES LTD) 8 October 2003 (2003-10-08)	1
Y	claims 1-24; examples 1-9	1,11
Y	EP 1 118 859 A (WAKO PURE CHEMICAL INDUSTRIES, LTD) 25 July 2001 (2001-07-25) paragraphs '0167!, '0196!; claims 1-38	11
Y	WO 99/06589 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 11 February 1999 (1999-02-11) claims 1-10; figure 1	1,11
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

28 February 2005

Date of mailing of the international search report

04/03/2005

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PCT/FI2004/000654

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/012688 A1 (KIPPENHAN ROLAND C ET AL) 16 January 2003 (2003-01-16) the whole document -----	1-14
A	EP 0 505 023 A (NALCO CHEMICAL COMPANY) 23 September 1992 (1992-09-23) the whole document -----	1-14
A	WO 02/088298 A (THE PROCTER & GAMBLE COMPANY) 7 November 2002 (2002-11-07) the whole document -----	1-14
A	US 4 912 332 A (SIEBEL ET AL) 27 March 1990 (1990-03-27) the whole document -----	1-14
A	US 2003/155090 A1 (HOLMBERG ANNA ET AL) 21 August 2003 (2003-08-21) the whole document -----	1-14
A	US 6 410 256 B1 (CERI HOWARD ET AL) 25 June 2002 (2002-06-25) cited in the application the whole document -----	1-14

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5349874	A	27-09-1994	AT AU DE DE DK EP ES ZA	106446 T 2897089 A 68915560 D1 68915560 T2 50589 A 0327386 A1 2053971 T3 8900757 A		15-06-1994 10-08-1989 07-07-1994 12-01-1995 05-08-1989 09-08-1989 01-08-1994 28-03-1990
EP 1350431	A	08-10-2003	JP JP JP JP BR EP US WO	2002205902 A 2003020598 A 2003164281 A 0206375 A 1350431 A1 2004132095 A1 02054865 A1		23-07-2002 24-01-2003 10-06-2003 13-07-2004 08-10-2003 08-07-2004 18-07-2002
EP 1118859	A	25-07-2001	JP JP CN EP JP TW US	2002040022 A 2002071684 A 1319762 A 1118859 A2 2001272399 A 491945 B 2001028862 A1		06-02-2002 12-03-2002 31-10-2001 25-07-2001 05-10-2001 21-06-2002 11-10-2001
WO 9906589	A	11-02-1999	AU BR CA EP JP WO US US	8595798 A 9810844 A 2297140 A1 1000169 A1 2001512031 T 9906589 A1 6420622 B1 6696286 B1		22-02-1999 25-07-2000 11-02-1999 17-05-2000 21-08-2001 11-02-1999 16-07-2002 24-02-2004
US 2003012688	A1	16-01-2003	DE GB WO	10296927 T5 2392387 A 03028772 A1		19-08-2004 03-03-2004 10-04-2003
EP 0505023	A	23-09-1992	AT AU AU CA DE DE DK EP ES GR JP US	141648 T 654318 B2 1042292 A 2058252 A1 69212867 D1 69212867 T2 505023 T3 0505023 A1 2093186 T3 3021635 T3 4320695 A 5374536 A		15-09-1996 03-11-1994 24-09-1992 19-09-1992 26-09-1996 30-01-1997 23-12-1996 23-09-1992 16-12-1996 28-02-1997 11-11-1992 20-12-1994
WO 02088298	A	07-11-2002	CA EP JP WO US	2445591 A1 1381668 A1 2004528356 T 02088298 A1 2003105072 A1		07-11-2002 21-01-2004 16-09-2004 07-11-2002 05-06-2003
US 4912332	A	27-03-1990	NONE			

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FI2004/000654

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 2003155090	A1	21-08-2003	FI 20001040 A AT 259448 T AU 5844501 A CA 2407898 A1 DE 60102015 D1 DE 60102015 T2 EP 1287201 A1 WO 0183886 A1 JP 2003531973 T NO 20025242 A PT 1287201 T	05-11-2001 15-02-2004 12-11-2001 08-11-2001 18-03-2004 25-11-2004 05-03-2003 08-11-2001 28-10-2003 01-11-2002 30-06-2004
US 6410256	B1	25-06-2002	US 6599714 B1 AU 724282 B2 AU 2088797 A EP 0904347 A1 JP 2000506021 T CA 2248808 A1 WO 9733972 A1 DE 29723730 U1 US 6051423 A US 6326190 B1	29-07-2003 14-09-2000 01-10-1997 31-03-1999 23-05-2000 18-09-1997 18-09-1997 04-03-1999 18-04-2000 04-12-2001

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